The following language is taken from Region 5 states and their Administrative Codes. Illinois does not have a multiple discharger variance provision, included for Indiana is the 2nd Notice language from the 1999 triennial review (for reference), Michigan has a multiple discharger provision under subsection (9), Minnesota does not have a multiple discharger variance provision, Ohio has a multiple discharger provision under (9) and (10) and Wisconsin has the ability to set alternative mercury effluent limitations.
A comparison of the state's rules will be made at the June 11, 2003 Workgroup meeting.

ILLINOIS
35 Ill. Adm. Code 180.202 (2003)
§ 180.202 Requirements of the Written Application.

a) Two copies of the application shall be sent to: Illinois Environmental Protection Agency Division of (Air Pollution Control, Water Pollution Control, Land/Noise Pollution Control, Public Water Supplies, as appropriate) 2200 Churchill Road Springfield, Illinois 62706

b) The application shall include:

1) A statement identifying the regulations, Board Order, or permit requirements from which the variance is requested;

2) A description of the business or activity for which the variance is requested, including pertinent data on location, size, and the population and geographic area affected by the applicant's operations;

3) The quantity and types of materials used in the process or activity for which the variance is requested, as appropriate;

4) The quantity, types and nature of materials or emissions to be discharged, deposited or emitted under the variance, and the identification of the receiving waterway or land, or the closest receiving Class A and Class B land use, as appropriate;

5) The quantity and types of materials in drinking water exceeding the allowable content, or other pertinent facts concerning variances from the Board's public water supply regulations;

6) An assessment of any adverse environmental impacts which the variance may produce;

7) A statement explaining why compliance with the Act, regulations or Board Order imposes arbitrary and unreasonable hardship;

8) A description of the proposed methods to achieve compliance with the Act, regulations or Board Order, and a timetable for achieving such compliance;

9) A discussion of alternate methods of compliance and of the factors influencing the choice of applying for a provisional variance;

10) A statement of the period, not to exceed 45 days, for which the variance is requested;

11) A statement of whether the applicant has been granted any provisional variances within the calendar year, and the terms and duration of such variances;

12) A statement regarding the applicant's current permit status as related to the subject matter of the variance request;

13) Any Board orders in effect regarding the applicant's activities and any matters currently before the Board in which the applicant is a party.

Authority & General Source

INDIANA
Indiana Second Notice 22 Indiana Register 1723- 1724
327 IAC 2-1.6-16 Mercury variance

Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-14-8-8; IC 13-14-8-9; IC 13-14-8-10; IC 13-18-3-1; IC 13-18-3-3

Affected: IC 13-18-3; IC 13-18-4

[A> SEC. 16. (A) ON THE ADOPTION DATE OF THIS RULE, THE COMMISSIONER HAS DETERMINED THAT THE AVERAGE COST TO REDUCE MERCURY BELOW TWELVE NANOGRAMS PER LITER (NG/L) FROM A WASTESTREAM THROUGH END-OF-PIPE TREATMENT IS IN EXCESS OF TEN MILLION DOLLARS ($ 10,000,000) PER POUND OF MERCURY REMOVED AND WOULD IMPOSE AN UNDUE HARDSHIP OR BURDEN UPON ALL PERMIT APPLICANTS AND PERMITTEES IN THE STATE. ON THE ADOPTION DATE OF THIS RULE, THE COMMISSIONER HAS DETERMINED THAT REQUIRING REMOVAL OF MERCURY BY CONSTRUCTION OF END-OF-PIPE CONTROLS TO ATTAIN MERCURY WATER QUALITY STANDARDS, AND REQUIRING CONTROLS MORE STRINGENT THAN THOSE REQUIRED BY SECTIONS 301(B) AND 306 OF THE CWA WOULD RESULT IN SUBSTANTIAL AND WIDESPREAD SOCIAL AND ECONOMIC IMPACT. THIS SECTION SHALL BECOME APPLICABLE UPON U.S. EPA FINAL ADOPTION OF A NEW MERCURY ANALYTICAL METHOD THAT INCLUDES A METHOD DETECTION LEVEL LESS THAN TWO-TENTHS (0.2) MICROGRAM PER LITER. <A]

[A> (B) THE COMMISSIONER MAY GRANT A VARIANCE UNDER THIS SECTION WITHOUT GIVING ANY ADDITIONAL CONSIDERATION TO THE FACTORS SPECIFIED IN SECTIONS 1, 2, 5, 6, AND 9 OF THIS RULE WHERE THE COMMISSIONER DETERMINES: <A]

[A> (1) THAT A MERCURY WQBEL BASED ON THE HUMAN HEALTH OR WILDLIFE CRITERIA ADOPTED IN 327 IAC 2-1.2 WOULD BE NECESSARY FOR A PARTICULAR PERMITTEE TO COMPLY WITH WATER QUALITY STANDARDS IN THE ABSENCE OF A VARIANCE; <A]

[A> (2) THAT THE PERMITTEE IS NOT CURRENTLY COMPLYING WITH THE WQBEL AND INFORMATION AVAILABLE FROM THE APPLICATION REQUIRED IN THIS PARAGRAPH INDICATES THAT THERE IS NO READILY APPARENT MEANS OF COMPLYING WITH THE WQBEL WITHOUT CONSTRUCTING END-OF-PIPE CONTROLS MORE STRINGENT THAN THOSE REQUIRED BY SECTIONS 301(B) AND 306 OF THE CWA; <A]

[A> (3) THAT THE DISCHARGER IS CURRENTLY ABLE TO ACHIEVE OR PROJECTS THAT IT CAN ACHIEVE AN ANNUAL AVERAGE MERCURY EFFLUENT CONCENTRATION OF TWELVE (12) NG/L PRIOR TO THE EXPIRATION DATE OF THE DISCHARGER'S NPDES PERMIT. FOR THE PURPOSE OF DETERMINING ELIGIBILITY UNDER THIS SECTION THE ANNUAL AVERAGE MERCURY EFFLUENT CONCENTRATION SHALL BE THE AVERAGE OF THE MOST RECENT TWELVE MONTHS OF EFFLUENT DATA. <A]

[A> (C) THE COMMISSIONER MAY DETERMINE WHETHER THERE ARE OTHER MEANS BY WHICH THE PERMITTEE COULD COMPLY WITH THE WQBEL WITHOUT CONSTRUCTING END-OF-PIPE TREATMENT BASED ON THE INFORMATION PROVIDED BY THE PERMITTEE IN THE APPLICATION SUBMITTED IN ACCORDANCE WITH THIS SUBSECTION. IN LIEU OF COMPLYING WITH THE REQUIREMENTS OF SECTION 5 OR 6 OF THIS RULE, A DISCHARGER SEEKING A VARIANCE UNDER THIS SECTION SHALL SUBMIT TO THE COMMISSIONER AN APPLICATION CONTAINING THE FOLLOWING INFORMATION IN WRITING: <A]

[A> (1) A CERTIFICATION THAT THE DISCHARGER INTENDS TO BE SUBJECT TO THE TERMS OF

THIS SECTION. <A]

[A> (2) A DESCRIPTION OF MEASURES TAKEN TO DATE FOR MERCURY REDUCTION OR ELIMINATION PROJECTS. <A]

[A> (3) A PLAN OF STUDY FOR THE IDENTIFICATION AND EVALUATION OF POTENTIAL MERCURY SOURCES AND POTENTIAL METHODS FOR REDUCING AND/OR ELIMINATING MERCURY FROM THE DISCHARGER'S EFFLUENT. THE PLAN OF STUDY SHALL INCLUDE THE FOLLOWING, AT A MINIMUM: <A]

[A> (A) DATA DOCUMENTING THE FACILITY'S CURRENT INFLUENT AND EFFLUENT MERCURY CONCENTRATIONS; <A]

[A> (B) IDENTIFICATION OF ALL KNOWN MERCURY SOURCES; <A]

[A> (C) A DESCRIPTION OF CURRENT PLANS TO REDUCE OR ELIMINATE KNOWN SOURCES OF MERCURY; <A] [*1724]

[A> (D) A PRELIMINARY IDENTIFICATION OF OTHER POTENTIAL MERCURY SOURCES; <A]

[A> (E) A PROPOSED SCHEDULE FOR EVALUATING THE MERCURY SOURCES; AND <A]

[A> (F) A PROPOSED SCHEDULE FOR IDENTIFYING AND EVALUATING POTENTIAL REDUCTION, ELIMINATION, AND PREVENTION METHODS. <A]

[A> (4) AN EXPLANATION OF THE PERMITTEE'S BASIS FOR CONCLUDING THAT THERE ARE NO READILY AVAILABLE MEANS OF COMPLYING WITH THE WQBEL WITHOUT CONSTRUCTION OF END-OF-PIPE CONTROLS. <A]

[A> (D) THE COMMISSIONER SHALL DENY THE APPLICABILITY OF SUBSECTION (B) TO A DISCHARGER IF THE DISCHARGER FAILS TO FULFILL THE APPLICATION REQUIREMENTS SPECIFIED IN SUBSECTION (C). <A]

[A> (E) IF THE CONDITIONS OF SUBSECTION (B) AND (C) ARE MET, THE COMMISSIONER SHALL ISSUE THE VARIANCE AND INCORPORATE THE FOLLOWING REQUIREMENTS, AT A MINIMUM, INTO THE DISCHARGER'S NPDES PERMIT: <A]

[A> (1) ALL CONDITIONS REQUIRED UNDER SECTION 12 OF THIS RULE. <A]

[A> (2) A REQUIREMENT THAT THE DISCHARGER'S AVERAGE MERCURY EFFLUENT CONCENTRATION AS DEFINED IN SUBSECTION (B) MUST REMAIN LESS THAN OR EQUAL TO TWELVE (12) NG/L AFTER THE DATE SPECIFIED IN THE DISCHARGER'S ACCEPTED PLAN OF STUDY FOR THE REQUIREMENTS UNDER THIS SUBSECTION TO BE APPLICABLE. THE REQUIREMENTS OF SUBSECTION (F) SHALL BE INCLUDED IN THE PERMIT. <A]

[A> (3) PERMIT CONDITIONS NEEDED TO IMPLEMENT THE PLAN OF STUDY SUBMITTED UNDER SUBDIVISION (C)(3). <A]

[A> (4) A REQUIREMENT THAT THE DISCHARGER USE THE MOST SENSITIVE APPROVED TEST PROCEDURE. <A]

[A> (5) A REQUIREMENT THAT UPON COMPLETION OF THE ACTIONS IDENTIFIED IN THE PLAN OF STUDY AND IN THE PMP REQUIRED BY SECTION 12(C) OF THIS RULE, THE PERMITTEE SHALL SUBMIT TO THE COMMISSIONER A CERTIFICATION THAT ALL PERMIT CONDITIONS IMPOSED TO

IMPLEMENT THE PLAN OF STUDY AND PMP HAVE BEEN SATISFIED BUT THAT COMPLIANCE WITH THE WQBEL HAS NOT BEEN ACHIEVED. THIS CERTIFICATION SHALL BE ACCOMPANIED BY THE FOLLOWING: <A]

[A> (A) ALL AVAILABLE DATA DOCUMENTING THE DISCHARGER'S CURRENT INFLUENT AND EFFLUENT MERCURY CONCENTRATIONS. <A]

[A> (B) DATA DOCUMENTING ALL KNOWN SIGNIFICANT SOURCES OF MERCURY AND THE STEPS THAT HAVE BEEN TAKEN TO REDUCE OR ELIMINATE THOSE SOURCES. <A]

[A> (C) A DETERMINATION OF THE LOWEST MERCURY CONCENTRATION THAT CURRENTLY AVAILABLE DATA INDICATE CAN BE RELIABLY ACHIEVED THROUGH IMPLEMENTATION OF THE PMP. <A]

[A> (D) ACTION ON THE CERTIFICATION SUBMITTED PURSUANT TO THIS SUBDIVISION MAY BE THROUGH EITHER A DRAFT ACTION PROPOSING TO APPROVE THAT CERTIFICATION, A PERMIT MODIFICATION, OR A PERMIT RENEWAL. WITHIN ONE HUNDRED EIGHTY (180) DAYS FOLLOWING RECEIPT OF THE CERTIFICATION OF THIS SUBDIVISION, THE COMMISSIONER SHALL, AS APPROPRIATE: <A]

[A> (I) ISSUE A DRAFT ACTION PROPOSING TO APPROVE THE CERTIFICATION AND, IF NECESSARY, A PROPOSED PERMIT MODIFICATION; <A]

[A> (II) WHERE THE ACTION IS PROPOSED WITH A PERMIT MODIFICATION, ISSUE A PROPOSED ACTION MODIFYING THE PERMIT TO DELETE THE VARIANCE AND IMPOSE ADDITIONAL POLLUTANT MINIMIZATION STEPS CONSISTENT WITH SECTION 12(C) OF THIS RULE; OR <A]

[A> (III) WHERE THE ACTION IS BY A PERMIT RENEWAL, ISSUE A DRAFT ACTION PROPOSING TO DELETE THE VARIANCE AND IMPOSE ADDITIONAL POLLUTANT MINIMIZATION STEPS CONSISTENT WITH SECTION 12(C) OF THIS RULE. <A]

[A> IF, AFTER CONSIDERATION OF PUBLIC COMMENT, THE COMMISSIONER APPROVES THE CERTIFICATION, THE VARIANCE SHALL CONTINUE IN EFFECT IN ACCORDANCE WITH THE TERMS OF THE PERMIT AS ISSUED. DRAFT AND PROPOSED ACTIONS UNDER THIS CLAUSE SHALL BE ISSUED AND ACTED UPON IN ACCORDANCE WITH SECTIONS 10 AND 11 OF THIS RULE. <A]

[A> (F) IF AT ANY TIME AFTER THE COMMISSIONER'S FINAL ACTION APPROVING THE CERTIFICATION REQUIRED UNDER SUBSECTION (E)(5) THE DISCHARGER'S AVERAGE MERCURY EFFLUENT CONCENTRATION AS DEFINED IN SUBSECTION (B) EXCEEDS TWELVE (12) NG/L, THE DISCHARGER SHALL SUBMIT AN INDIVIDUAL VARIANCE APPLICATION, IF A VARIANCE IS DESIRED, OR REQUEST A PERMIT MODIFICATION FOR A COMPLIANCE SCHEDULE TO ATTAIN COMPLIANCE WITH THE WQBEL. THIS SECTION SHALL NO LONGER APPLY TO THE DISCHARGER ON THE DATE THE COMMISSIONER ACTS ON THE DISCHARGER'S INDIVIDUAL VARIANCE APPLICATION OR THE DATE THE PERMIT MODIFICATION BECOMES EFFECTIVE. THE REQUIREMENTS OF THIS PARAGRAPH SHALL NOT APPLY TO THE DISCHARGER IF THE DISCHARGER DEMONSTRATES TO THE SATISFACTION OF THE COMMISSIONER THAT THE MERCURY LEVEL IN THE DISCHARGER'S EFFLUENT EXCEEDS TWELVE (12) NG/L DUE PRIMARILY TO THE PRESENCE OF MERCURY IN THE DISCHARGER'S INTAKE WATER. <A] (Water Pollution Control Board; 327 IAC 2-1.6-15)

MICHIGAN
MICH. ADMIN. CODE R. 323.1103 (2001)
§ 323.1103 Variances.

Rule 103. (1) A variance may be granted from any water quality standard (WQS) that is the basis of a water quality-based effluent limitation in a national pollutant discharge elimination system (NPDES) permit, as restricted by the following provisions:

(a) A WQS variance applies only to the permittee or permittees requesting the variance and only to the pollutant or pollutants specified in the variance. The variance does not modify the water quality standards for the water body as a whole.

(b) A variance shall not apply to new dischargers unless the proposed discharge is necessary to alleviate an imminent and substantial danger to the public health or welfare.

(c) A WQS variance shall not be granted that would likely jeopardize the continued existence of any endangered or threatened species listed under section 4 of the endangered species act or result in the destruction or adverse modification of the species' critical habitat.

(d) A WQS variance shall not be granted if the standard in the receiving water will be attained by implementing the treatment technology requirements under the clean water act of 1972, as amended, 33 U.S.C. §§ 301(b) and 306, and by the discharger implementing cost-effective and reasonable best management practices for nonpoint sources over which the discharger has control within the vicinity of the facility.

(e) The duration of a WQS variance shall not exceed the term of the NPDES permit. If the time frame of the variance is the same as the permit term, then the variance shall stay in effect until the permit is reissued or revoked.

(2) A variance may be granted if the permittee demonstrates to the department that attaining the WQS is not feasible for any of the following reasons:

(a) Naturally occurring pollutant concentrations prevent the attainment of the WQS.

(b) Natural, ephemeral, intermittent, or low flow conditions or water levels prevent the attainment of the WQS.

(c) Human-caused conditions or sources of pollution prevent the attainment of the WQS and cannot be remedied or more environmental damage would occur in correcting the conditions or sources of pollution than would occur by leaving the conditions or sources in place.

(d) Dams, diversions, or other types of hydrologic modifications preclude the attainment of the WQS, and it is not feasible to restore the water body to its original condition or to operate the modification in a way that would result in the attainment of the WQS.

(e) Physical conditions related to the natural features of the water body preclude attainment of WQS.

(f) Controls more stringent than the treatment technology requirements in the clean water act of 1972, as amended, 33 U.S.C. §§ 301(b) and 306 would result in unreasonable economic effects on the discharger and affected communities.

(3) In addition to the requirements of subrule (2) of this rule, a permittee shall do both of the following:

(a) Show that the variance requested conforms to the antidegradation demonstration requirements of R 323.1098.

(b) Characterize the extent of any increased risk to human health and the environment associated with granting the variance compared with compliance with WQS without the variance in a way that enables the department to conclude that the increased risk is consistent with the protection of the public health, safety, and welfare.

(4) A permittee may request a variance when a NPDES permit application is submitted or during permit development. A variance request may also be submitted with a request for a permit modification. The variance

request to the department shall include the following information:

(a) All relevant information which demonstrates that attaining the WQS is not feasible based on 1 or more of the conditions in subrule (2) of this rule.

(b) All relevant information which demonstrates compliance with subrule (3) of this rule.

(5) The variance request shall be available to the public for review during the public comment period on the draft NPDES permit. The preliminary decision regarding the variance shall be included in the public notice of the draft NPDES permit. The department will notify the other Great Lakes states of the preliminary variance decision.

(6) If the department determines, based on the conditions of subrules (2) and (3) of this rule, that the variance request demonstrates that attaining the WQS is not feasible, then the department shall authorize the variance through issuance of the NPDES permit. The permit shall contain all conditions needed to implement the variance, including, at a minimum, all of the following conditions:

(a) That compliance with an effluent limitation that, at the time the variance is granted, represents the level currently achievable by the permittee. For an existing discharge, the effluent limitation shall be no less stringent than that achieved under the previous permit.

(b) That reasonable progress be made in effluent quality toward attaining the water quality standards. If the variance is approved for any BCC, a pollutant minimization program shall be conducted consistent with the provisions in paragraphs (i) through (iv) of R323.1213(d). The department shall consider cost-effectiveness during the development and implementation of the pollutant minimization program.

(c) That if the duration of a variance is shorter than the duration of a permit, then compliance with an effluent limitation that is sufficient to meet the underlying water quality standard shall be achieved when the variance expires.

(7) The department shall deny a variance request through action on the NPDES permit if a permittee fails to make the demonstrations required under subrules (2) and (3) of this rule.

(8) A variance may be renewed, subject to the requirements of subrules (1) through (7) of this rule. As part of any renewal application, a permittee shall again demonstrate that attaining WQS is not feasible based on the requirements of subrules (2) and (3) of this rule. A permittee's application shall also contain information concerning the permittee's compliance with the conditions incorporated into the permittee's permit as part of the original variance pursuant to subrule (6) of this rule.

(9) Notwithstanding the provision in subrule (1)(a) of this rule, the department may grant multiple discharger variances. If the department determines that a multiple discharger variance is necessary to address widespread WQS compliance issues, including the presence of ubiquitous pollutants or naturally high background levels of pollutants in a watershed, then the department may waive the variance demonstration requirements in subrules (2), (3), and (4) of this rule. A permittee that is included in the multiple discharger variance will be subject to the permit requirements of subrule (6) of this rule if it is determined under R323.1211 that there is reasonable potential for the pollutant to exceed a permit limitation developed under R323.1209.

AUTHORITY: By authority conferred on the director of the department of environmental quality by sections 501, 502, and 503 of Act No. 451 of the Public Acts of 1994, as amended, and Executive Reorganization Order No. 1995-16, being §§ 324.501, 324.502, 324.503, and 324.99903 of the Michigan Compiled Laws

HISTORY: 1997 MR 7, Eff. July 29, 1997; 1999 AC

MINNESOTA

Minn. R. 7052.0280 (2002)

7052.0280 VARIANCES FROM WATER QUALITY STANDARDS OR CRITERIA

Subpart 1. Applicability. This part applies to GLI pollutant-specific variance requests from individual point source dischargers to surface waters of the state in the Lake Superior Basin for WQBELs which are included in a permit. This part does not apply to new dischargers, unless the proposed discharge is necessary to alleviate an imminent and substantial danger to public health and welfare. A water quality standards or criteria variance must not be granted if any of the following conditions exist:

A. if it would jeopardize the continued existence of any endangered or threatened species listed under chapter 6134 or section 4 of the Endangered Species Act, United States Code, title 16, section 1533, or result in destruction or adverse modification of such species' critical habitat; or

B. if standards or criteria will be attained by implementing effluent limitations required under sections 301(b) and 306 of the Clean Water Act, United States Code, title 33, sections 1311(b) and 1316, and by the permittee implementing cost-effective and reasonable best management practices for nonpoint source control.

Subp. 2. Maximum time frame. A variance must not exceed five years or the term of the permit, whichever is less.

Subp. 3. Conditions to grant a variance. The agency must grant a variance if the following conditions are met:

A. the permittee demonstrates to the agency that attaining the water quality standard or criterion is not feasible because:

(1) naturally occurring GLI pollutant concentrations prevent attainment of the water quality standard or criterion;

(2) natural, ephemeral, intermittent, or low-flow conditions or water levels prevent the attainment of water quality standards or criteria, unless these conditions may be compensated for by discharging sufficient volume of effluent to enable water quality standards or criteria to be met without violating the water conservation requirements of Minnesota Statutes, chapter 103G;

(3) human-caused conditions or sources of pollution prevent the attainment of water quality standards or criteria and cannot be remedied, or would cause more environmental damage to correct than to leave in place;

(4) dams, diversions, or other types of hydrologic modifications preclude the attainment of water quality standards or criteria, and it is not feasible to restore the waterbody to its original condition or to operate the modification in a way that would result in attainment of the water quality standard;

(5) physical conditions related to the natural features of the waterbody, such as the lack of a proper substrate cover, flow, depth, pools, riffles, and the like, unrelated to chemical water quality, preclude attainment of water quality standards or criteria; or

(6) controls more stringent than those required under sections 301(b) and 306 of the Clean Water Act, United States Code, title 33, sections 1311(b)and 1316, would result in substantial and widespread economic and social impact;

B. the permittee shows that the variance conforms with agency nondegradation procedures; and

C. the permittee characterizes the extent of any increased risk to human health and the environment associated with granting the variance, such that the agency is able to conclude that any increased risk is consistent with the protection of the public health, safety, and welfare.

Subp. 4. Variance application submittal, public notice of preliminary determination, and notice requirements. Variance application submittal, public notice of preliminary determination, and notice requirements must conform to part 7000.7000.

Subp. 5. Agency final decision; variance requirements. The agency must issue a final decision regarding the variance request that conforms to the procedural requirements in part 7000.7000. If a variance is granted, it must include and incorporate into the permit the following conditions:

A. an effluent limitation representing currently achievable treatment conditions based on discharge monitoring which is no less stringent than that achieved under the previous permit;

B. a schedule of compliance activities for attaining water quality standards or criteria;

C. an effluent limitation sufficient to meet the underlying water quality standard or criterion, upon the expiration of the variance, when the duration of the variance is shorter than the duration of the permit;

D. a provision allowing the agency to reopen and modify the permit based on agency triennial water quality standards revisions applicable to the variance; and

E. for BCCs, a GLI pollutant minimization program consistent with part 7052.0250, subpart 4.

Subp. 6. Renewal of variance. The renewal of a variance is subject to the requirements of subparts 1 to 5.

Subp. 7. Notice of variances. The agency must list all variances to state water quality standards as required in part 7050.0190, subpart 2.

Statutory Authority: Minn. Stat. § 115.03; 115.44
History 22 SR 1466

OHIO
OAC Ann. 3745-33-07
(9) Multiple discharger applications. The director may approve variances for multiple dischargers based on discharger specific information and data where necessary to address widespread WQS nonattainment issues. The director may waive the requirements under paragraphs (D)(3) and (D)(4) of this rule where the director has enough information to determine that variances are necessary according to one or more of the conditions in paragraph (D)(3)(a) of this rule.

(10) On the adoption date of this rule, the director has determined that the average cost to reduce mercury below twelve ng/1 from a wastestream through end-of-pipe treatment is in excess of ten million dollars per pound of mercury removed. On the adoption date of this rule, the director has determined that requiring removal of mercury by construction of end-of-pipe controls to attain mercury WQS, requiring controls more stringent than those required by sections 301(b) and 306 of the act would result in substantial and widespread social and economic impact. Paragraphs (D)(10)(a), (D)(10)(b), and (D)(10)(c) of this rule shall become applicable upon U.S.EPA final adoption of a new mercury analytical method that includes a method detection level less than 0.2 ug/1.

(a) The director may grant a variance under paragraph (D)(10) of this rule without giving any additional consideration to the factors specified in paragraph (D)(3)(a) of this rule where the director determines: that an average mercury WQBEL based on the human health or wildlife criteria adopted in rule 3745-1 of the Administrative Code would be necessary for a particular permittee to comply with water quality standards in the absence of a variance; and that the permittee is not currently complying with the WQBEL and information available from the application required in this paragraph indicates that there is no readily apparent means of complying with the WQBEL without constructing end-of-pipe controls more stringent than those required by sections 301 (b) and 306 of the act; and that the discharger is currently able to achieve or projects that it can achieve an annual average mercury effluent concentration of twelve ng/1 prior to the expiration date of the discharger's NPDES permit. For the purpose of determining eligibility under this section the annual average mercury effluent concentration shall be the average of the most recent twelve months of effluent data. The director may determine whether there are other means by which the permittee could comply with the WQBEL without constructing end-of-pipe treatment based on the information provided by the permittee in the application submitted in accordance with this paragraph. In lieu of complying with the requirements of paragraph (D)(4) of this rule, a discharger seeking a variance under paragraph (D)(10) of this rule shall submit to the director an application containing the following information in writing:

(i) A certification that the discharger intends to be subject to the terms of paragraph (D)(10) of this rule;

(ii) A description of measures taken to date for mercury reduction or elimination projects;

(iii) A plan of study for the identification and evaluation of potential mercury sources and potential methods for reducing and/or eliminating mercury from the discharger's effluent. The plan of study shall include the following, at a minimum: data documenting the facility's current influent and effluent mercury concentrations; identification of all known mercury sources; a description of current plans to reduce or eliminate known sources of mercury; a preliminary identification of other potential mercury sources; a proposed schedule for evaluating the mercury sources; and a proposed schedule for identifying and evaluating potential reduction, elimination, and prevention methods; and

(iv) An explanation of the permittee's basis for concluding that there are no readily available means of complying with the WQBEL without construction of end-of-pipe controls.

(b) The director shall deny the applicability of paragraph (D)(10)(a) of this rule to a discharger if the discharger fails to fulfill the requirements specified in paragraph (D)(10)(a) of this rule.

(c) If the conditions of paragraph (D)(10)(a) of this rule are met, the director shall issue the variance and incorporate

the following requirements, at a minimum, into the discharger's NPDES permit:

(i) All conditions required under paragraph (D)(6)(a) of this rule;

(ii) A requirement that the discharger's average mercury effluent concentration as defined in paragraph (D)(10)(a) of this rule must remain less than or equal to twelve ng/1 after the date specified in the discharger's accepted plan of study for the requirements under this paragraph to be applicable. The requirements of paragraph (D)(10)(e) of this rule shall be included in the permit;

(iii) Permit conditions needed to implement the plan of study submitted under paragraph (D)(10)(a)(ii) of this rule;

(iv) A requirement that the discharger use the most sensitive approved U.S. EPA analytical method; and

(v) A requirement that upon completion of the actions identified in the plan of study and in the PMP required by paragraph (D)(6)(a)(ii) of this rule, the permittee shall submit to the director a certification that all permit conditions imposed to implement the plan of study and PMP have been satisfied but that compliance with the WQBEL has not been achieved. This certification shall be accompanied by the following:

(a) All available data documenting the discharger's current influent and effluent mercury concentrations;

(b) Data documenting all known significant sources of mercury and the steps that have been taken to reduce or eliminate those sources;

(c) A determination of the lowest mercury concentration that currently available data indicate can be reliably achieved through implementation of the PMP.

(d) Action on the certification submitted pursuant to paragraph (D)(10)(c)(v) of this rule may be through either a draft action proposing to approve that certification, a permit modification, or a permit renewal. Within one hundred eighty days following receipt of the certification required under paragraph (D)(10)(c)(v) of this rule the director shall, as appropriate:

(i) Issue a draft action proposing to approve that certification and, if necessary, a proposed permit modification; or

(ii) Where the action is proposed with a permit modification, issue a proposed action modifying the permit to delete the variance and impose additional pollutant minimization steps consistent with rule 3745-33-09 of the Administrative Code; or

(iii) Where the action is by a permit renewal, issue a draft action proposing to delete the variance and impose additional pollutant minimization steps consistent with rule 3745-33-09 of the Administrative Code.

If, after consideration of public comment, the director approves the certification, the variance shall continue in effect in accordance with the terms of the permit as issued. Draft and proposed actions under this paragraph shall be issued and acted upon in accordance with the provisions of rule 3745-47 of the Administrative Code.

(e) If at any time after the director's final action approving the certification required under paragraph (D)(10)(c)(v) of this rule the discharger's average mercury effluent concentration as defined in paragraph (D)(10)(a) of this rule exceeds twelve ng/1, the discharger shall submit an individual variance application, if a variance is desired, or request a permit modification for a compliance schedule to attain compliance with the WQBEL. Paragraph (D)(10) of this rule shall no longer apply to the discharger on the date the director acts on the discharger's individual variance application or the date the permit modification becomes effective. The requirements of this paragraph shall not apply to the discharger if the discharger demonstrates to the satisfaction of the director that the mercury level in the discharger's effluent exceeds twelve ng/1 due primarily to the presence of mercury in discharger's intake water.

(11) All variances and supporting information shall be made available by the director to the U.S.EPA region V

office after the date of the final variance decision.

(12) WQS revisions. All variances shall be distributed with Chapter 3745-1 of the Administrative Code and shall be made available upon request to all interested parties. The distributed information shall include at a minimum: the discharger receiving the variance; the term (beginning and ending dates) of the variance; the water body or water bodies affected by the variance; the pollutant(s) affected by the variance; and the modified allowable ambient concentration value(s) for those pollutants.

WISCONSIN
Wis. Adm. Code NR 106.145 (2003)
NR 106.145 Mercury regulation

This section provides an alternative means of regulating mercury in WPDES permits through the establishment of alternative mercury effluent limitations and other requirements and is intended as a supplement to the authority and procedures contained in other sections of this chapter. For purposes of this section, an alternative mercury effluent limitation represents a variance to water quality standards specified in chs. NR 102 to 105.

(1) FINDINGS. On November 1, 2002, the department finds all of the following:

(a) Requiring all dischargers of mercury to remove mercury using wastewater treatment technology to achieve discharge concentrations necessary to meet water quality standards would result in substantial and widespread adverse social and economic impacts.

(b) Representative data on the relatively low concentrations of mercury in wastewater are rare and methods for collecting that data have only recently been developed.

(c) Appropriate mercury source reduction activities are environmentally preferable to wastewater treatment technology in many cases because wastewater treatment for mercury produces a sludge or other resultant wastewater stream that can be as much or more of an environmental liability than the untreated effluent.

(2) DETERMINING THE NECESSITY OF MERCURY EFFLUENT LIMITATIONS. (a) The department shall determine whether a mercury effluent limitation is necessary using the procedures in s. NR 106.05.

(b) For the determination under par. (a), the department shall use representative data that comply with all of the following:

1. Data shall meet the sampling and analysis requirements of subs. (9) and (10).

2. Data shall consist of at least 12 monitoring results spaced out over a period of at least 2 years.

(3) DATA GENERATION. (a) In this paragraph, "major municipal discharge" and "minor municipal discharge" have the meanings specified in s. NR 200.02 (7) and (8). If an applicant in any of the categories specified in this subsection does not have sufficient discharge data that meet the criteria of sub. (2) at the time of application for permit reissuance, the reissued permit shall require the permittee to monitor and report mercury at the following frequency and location:

1. Monthly influent and effluent for a major municipal discharge with an average flow rate greater than or equal to 5 million gallons per day.

2. Once every 3 months influent and effluent for a major municipal discharge with an average flow rate greater than or equal to one million gallons per day but less than 5 million gallons per day.

3. Once every 3 months influent and effluent for a minor municipal discharge if there are 2 or more exceedances in the last 5 years of the high quality sludge mercury concentration of 17 mg/kg specified in s. NR 204.07 (5).

4. Monthly effluent for an industrial discharge that the department determines is likely to contribute net discharges of mercury to the environment or if sludge or biosolids mercury concentrations indicate a source of mercury.

5. Once every 3 months effluent for an industrial discharge with an average flow rate, excluding noncontact cooling water as defined in s. NR 205.03 (21), of more than 100,000 gallons per day and the department has no information on mercury concentrations in similar discharges. The department may exempt discharges in this category if the department determines that there is little risk that the effluent will contain mercury.

Note: Any permittee who believes that a significant portion of the mercury in its effluent originates from its intake of surface water is encouraged to provide results of intake monitoring.

6. The department may reduce monitoring frequency from monthly to once every 3 months for discharges described in subds. 1. and 4. after at least 12 representative results have been generated.

(b) The department may require mercury monitoring for other discharges not included in one of the categories specified in par. (a) if the department has a reasonable expectation that the discharge includes significant quantities of mercury.

(c) Permittees shall collect and analyze samples according to the requirements in subs. (9) and (10).

(4) ALTERNATIVE MERCURY EFFLUENT LIMITATION ELIGIBILITY. (a) When the department makes a determination of the necessity for a water quality based effluent limitation for mercury under sub. (2), the department shall determine if an alternative mercury effluent limitation is justified based on information submitted by the permittee in an alternative mercury effluent limitation application.

(b) The department may not establish an alternative mercury effluent limitation for a new discharge to waters in the Great Lakes system, as defined in s. NR 102.12 (1), unless the proposed discharge is necessary to alleviate an imminent and substantial danger to the public health or welfare. For the purposes of this section, a new discharger is any building, structure, facility or installation from which there is or may be a discharge of pollutants, as defined in s. NR 200.02 (4), the construction of which commenced after November 1, 2002. An existing discharger that relocates its outfall after November 1, 2002 may not be considered a new discharger for purposes of this paragraph. Relocation includes the diversion of a discharge from a land treatment system or systems to a surface water.

(c) The term of an alternative mercury effluent limitation may not extend beyond the term of the permit.

(d) An alternative mercury effluent limitation may be renewed using the procedures and requirements in subs. (5) to (8). An alternative mercury effluent limitation may not be renewed if the permittee did not substantially comply with all of the mercury-regulation conditions of the previous permit.

(5) CALCULATION OF AN ALTERNATIVE MERCURY EFFLUENT LIMITATION. (a) An alternative mercury effluent limitation shall equal the upper 99th percentile of representative daily discharge concentrations as calculated under s. NR 106.05 (4) (a), except as provided in par. (c).

(b) The alternative mercury effluent limitation shall be expressed as a daily maximum concentration.

(c) An alternative mercury effluent limitation may not be greater than the alternative mercury effluent limitation contained in the previous permit, unless the permittee demonstrates that the previous alternative mercury effluent limitation was based on monitoring that did not represent actual discharge concentrations.

(6) DEPARTMENT ACTION ON ALTERNATIVE MERCURY EFFLUENT LIMITATION APPLICATIONS. (a) The department shall establish an alternative mercury effluent limitation for a discharger when all of the following have been met:

1. The information provided in the alternative mercury effluent limitation application described in sub. (8) supports establishing the alternative mercury effluent limitation.

2. The permittee and the department agree upon the alternative mercury effluent limitation and the specific permit language requiring implementation of the pollution minimization program described in sub. (7).

(b) If the information provided in the alternative mercury effluent limitation application does not support establishing an alternative mercury effluent limitation or if the department and the permittee cannot agree on the alternative mercury effluent limitation and the specific permit language incorporating the pollutant minimization program, the department shall include the water quality based effluent limitation or limitations in the permit. This paragraph does not prohibit the department from seeking and the applicant providing supplemental information after the initial application is submitted.

(c) If the department grants an alternative mercury effluent limitation, the permit shall require monitoring subject to the data quality requirements of subs. (9) and (10), at the following locations:

1. Effluent for both municipal and industrial discharges.

2. Influent and sludge or biosolids for major and minor municipal discharges.

(7) POLLUTANT MINIMIZATION PROGRAMS. (a) If the department grants an alternative mercury effluent limitation under sub. (6), the reissued permit shall require the permittee to implement a pollutant minimization program as defined in s. NR 106.04 (5) and detailed for mercury in this subsection.

(b) If the reissued permit requires monthly data generation under sub. (3) (a) 1. or 4., the permit shall contain a special condition that triggers a pollutant minimization program if the first 24 months of data demonstrate that a limit will be necessary under sub. (2). The permit shall also require that the permittee do all of the following:

1. Submit to the department within 36 months of permit reissuance a pollutant minimization program plan meeting the requirements specified in this subsection.

2. Implement the pollutant minimization program following submittal of the plan.

3. Submit the first annual status report required in par. (g) within 48 months of permit reissuance.

(c) For municipal permittees, a pollutant minimization program shall consist of all of the following elements:

1. Source identification.

2. Activities to help educate the general public, health professionals, school teachers, laboratory personnel or other professionals about ways to reduce use of mercury-containing products, recycle mercury-containing products and prevent spills.

3. A program for collecting mercury from the permittee's sewer system users. This program may be independently operated by the permittee, jointly by the permittee and others or by another governmental unit.

4. Other activities that the department, in consultation with the permittee, deems appropriate for the individual permittee's circumstances.

(d) For industrial permittees, a pollutant minimization program may consist of any of the following elements:

1. Source identification and inventory.

2. Improvement of operational, maintenance or management practices.

3. Substitution of raw materials or chemical additives with low-mercury alternatives.

4. Institution of alternative processes.

(e) In assessing the appropriate elements for a pollutant minimization program, the department may consider any of the following:

1. The type of discharger.

2. The operations that generate the wastewater.

3. The level of mercury in the effluent, influent and biosolids or sludge.

4. The costs of potential source reduction measures.

5. The environmental costs and benefits of the pollutant minimization program elements.

6. The characteristics of the community in which the discharger is located.

7. The opportunities for material substitution.

8. The opportunities available for support from or cooperation with other organizations.

9. The actions the discharger has taken in the past to reduce mercury use or discharges.

10. Any other relevant information.

(f) The pollutant minimization program plan shall include all of the following:

1. Identify specific activities to be undertaken and a relative timeline to implement those activities.

2. State which, if any, activities have already been implemented and how effective they were in reducing potential and actual mercury discharges.

3. Commit the permittee to document how the pollutant minimization program plan was implemented including measures such as the number of contacts of various types made, programs implemented and other activities.

4. Provide for steps to measure the effectiveness of the pollution minimization program elements in reducing potential and actual mercury discharges. Where the permittee regularly monitors influent, effluent, sludge or biosolids for mercury, measures shall include any changes in mercury concentrations over comparable historic data. Where practicable, other measures or estimates of mercury reductions from programs such as mercury recycling, collection or disposal may also be included.

(g) Within 12 months of the beginning of implementation of the pollutant minimization program and annually thereafter, the permittee shall report to the department on the progress of the pollutant minimization program as required in s. NR 106.04 (5). This annual report shall include all of the following:

1. An evaluation of the effectiveness of the program in accordance with the plan.

2. Identification of barriers that have limited program effectiveness and adjustments to the program that will be implemented during the next year to help address these barriers.

(h) Permittees may collaborate with one another or other parties to plan and implement a pollutant minimization

program.

Note: Permittees that do not prepare or effectively implement a pollutant minimization program are subject to regulatory requirements for mercury, without alternative mercury effluent limitations to water quality standards. For municipal permittees this may mean development and enforcement of mercury discharge standards for users of the public sewerage system pursuant to s. NR 211.10 (3). For users of the municipal sewerage system this may mean changes in processes, installation of treatment technology, or other means to comply with the municipal mercury discharge standards pursuant to s. NR 211.10 (1). Implementation of the municipal mercury discharge standards may require a program of user discharge permits and wastewater discharge monitoring.

(8) ALTERNATIVE MERCURY EFFLUENT LIMITATION APPLICATIONS. (a) To apply for an alternative mercury effluent limitation under this section, a permittee shall do all of the following:

1. Submit an alternative mercury effluent limitation application at the same time as the application for permit reissuance following data generation.

2. State the basis for concluding that wastewater treatment technology for mercury is impractical.

3. Supply representative effluent monitoring results of sufficient number and analytical sensitivity to quantify with reasonable certainty the concentration and mass of mercury discharged. Representative sample results shall meet all of the following requirements:

a. Be of sufficient quantity to allow calculation of the upper 99th percentile values pursuant to s. NR 106.05 (5).

b. Reasonably represent current conditions.

c. Meet the data quality requirements of subs. (9) and (10).

d. Represent a time period of at least 2 years.

4. Submit a pollution minimization program plan described in sub. (7) (f).

(b) A permittee applying for renewal of an alternative mercury effluent limitation previously granted shall follow the procedures in par. (a) except for all of the following:

1. The permittee shall submit information indicating whether the permittee substantially complied with mercury regulation conditions of the existing permit.

2. A new pollutant minimization program plan shall re-evaluate the plan required under the previous permit.

(9) SAMPLING REQUIREMENTS. (a) Sample types may be grab or 24-hour composite. "Grab sample" and "24-hour composite sample" have the meanings specified in s. NR 218.04.

(b) Sample collection methods shall be consistent with EPA Method 1669: Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels, EPA-821-R-96-011.

Note: This method provides flexible procedures for collecting samples under clean conditions. Sample collection personnel may modify this procedure or eliminate steps if the modification does not lead to unacceptable contamination of the samples. This method may be accessed on the department's website at http://www.dnr.state.wi.us/org/water/wm/ww/mercury/1669.pdf.

(c) Requirements for field blanks are as follows. A field blank means an aliquot of mercury-free reagent water that is placed in a sample container, shipped to the field and treated as a sample in all respects, including contact with the sampling devices and exposure to sampling site conditions, filtration, storage, preservation, and all analytical

procedures. The purpose of the field blank is to determine whether the field or sample transporting procedures and environments have contaminated the sample:

1. At least one field blank shall be collected at each site for each day a sample is collected. If more than one sample is collected in a day, at least one field blank for each 10 samples collected on that day shall be collected.

2. If mercury or any potentially interfering substance is found in the field blank at a concentration equal to or greater than 0.5 ng/L, the limit of detection or one-fifth the level in the associated sample, whichever is greater, results for associated samples may not be used for regulatory compliance purposes unless the conditions in subd. 3. are met.

3. If at least 3 field blanks are collected on a day when samples are collected and the average mercury concentration of the field blanks plus 2 standard deviations is less than or equal to one-half of the level in the associated sample or less than the lowest water quality criterion for mercury found in ch. NR 105, whichever is greater, results may be used.

Note: As of November 1, 2002 the lowest water quality criterion listed in ch. NR 105 is 1.3 ng/L.

4. Once a permittee demonstrates the ability to collect samples from a given site using an established procedure that meets the use-criteria of subd. 2., the permittee may decrease the number of field blanks to no fewer than one field blank for each 4 sampling days.

a. The initial demonstration shall consist of at least 6 consecutive sampling days.

b. If the permittee makes significant changes to the sampling procedure or sampling personnel, the 6-day demonstration shall be repeated.

c. If after reducing the field blank frequency, a field blank fails to meet the use-criteria, the permittee shall take corrective action and return to collecting field blanks on each sampling day until it can meet the use-criteria for at least 3 consecutive sampling days.

d. In no case may the permittee decrease field blanks to fewer than one for each 10 samples.

5. The permittee shall report, but may not subtract, field blank concentrations when reporting sample results.

Note: When using the data, the department may subtract field blanks from sample concentrations on a case-by-case basis.

(10) LABORATORY ANALYSIS REQUIREMENTS. (a) In this subsection, "method blank", "matrix spike" and "limit of detection" have the meanings specified in s. NR 149.03.

(b) The analytical method used shall be sensitive enough to quantify mercury concentrations in the sample or mercury concentrations down to the lowest water quality criterion found in ch. NR 105, whichever is greater.

(c) The department may exempt a permittee from the sensitivity requirement in par. (b) if the permittee can demonstrate to the department's satisfaction that the specific effluent matrix does not allow this level of sensitivity using the most sensitive approved method with all reasonable precautions.

(d) The laboratory performing the analyses shall be certified under ch. NR 149 for low-level mercury analyses. Until low-level mercury certification is available, the lab shall be certified under ch. NR 149 for mercury and recognized by the department as having demonstrated its low-level mercury capabilities under the emerging technology provision contained in s. NR 149.12 (2).

(e) Method blanks analyzed concurrently with samples shall be reported with sample results. Method blanks may be subtracted from sample results unless concentrations of mercury in the method blank exceed the laboratory's limit of

detection, 0.5 ng/L or 5% of the sample concentration, whichever is greater.

(f) Matrix spikes analyzed concurrently with samples shall have recoveries between 71 and 125 percent.

(11) DATA REJECTION. The department may reject any sample results if data quality requirements specified in subs. (9) and (10) are not met or if results are produced by a laboratory that is not in compliance with certification requirements specified in ch. NR 149.

(12) APPLICABILITY OF THE VARIANCE PROCESS UNDER S. 283.15, STATS. If a water quality based effluent limitation is included in a permit under sub. (6) (b), a permittee may apply to the department for a variance from the water quality standard used to derive the limitation following the procedure specified in s. 283.15, Stats. Where a permittee has been granted an alternative mercury effluent limitation under this section, the procedures of s. 283.15, Stats., are not applicable.

HISTORY: CR 02-019: cr. Register October 2002 No. 562, eff. 11-1-02.